CHAPTER 83. EVALUATE PART 135 (NINE OR LESS) APPROVED AIRCRAFT INSPECTION PROGRAM

SECTION 1. BACKGROUND

1. PROGRAM TRACKING AND REPORTING SUBSYSTEM (PTRS) ACTIVITY CODES.

A. Maintenance: 3343/3344

B. Avionics: 5343/5344

3. OBJECTIVE. This chapter describes how to evaluate and approve Title 14 of the Code of Federal Regulations (14 CFR) part 135 (nine or less) operator's Approved Aircraft Inspection Program (AAIP). It ensures that programs, systems, and intended methods of compliance are thoroughly reviewed, evaluated, and tested.

5. GENERAL.

A. Inspectors should become thoroughly familiar with the operator/applicant's operation. Special attention should be given to:

- Areas of operation
- Type of equipment (size and complexity)
- Operating history
- Maintenance/inspection organization, as applicable

B. The AAIP is used in lieu of the aircraft inspection requirements of 14 CFR part 91. However, it does not supersede other requirements of part 91 such as the altimeter system tests and equipment check, etc. An AAIP can be expanded to include additional maintenance requirements specified by 14 CFR part 135, § 135.421, repetitive Airworthiness Directives (AD) compliance, and life-limited controls, but the inspection program cannot override or alter AD or life-limited requirements.

C. An AAIP is authorized for use on operations specifications. Therefore, it cannot be transferred.

D. An AAIP is approved using a fixed inspection interval. There is NO regulatory basis that allows an AAIP to be approved with a plus (+) or minus (-) allowance for late accomplishment of inspections.

E. Large and turbine-powered multiengine aircraft inspection programs or progressive inspections per 14 CFR part 91, § 91.411 are more specific than the 100-hour/annual, but lack the ease and control provided by the AAIP. Programs for large and turbine-powered multiengine airplanes of nine or less passenger seats in operations under part 135 should be approved as AAIP's, because of the complexity of the aircraft. An AAIP is not considered better than a manufacturer's program; however, an AAIP provides the Federal Aviation Administration (FAA) inspector with more control of the program's content. It requires the operator to substantiate its program and revision to the approving inspector. Manufacturer's programs do not require this. This is not to say that a manufacturer's program cannot be used, but it must be identified as an AAIP approved for a particular operator as the operator's program, not the manufacturer's.

7. CHANGES TO APPROVED TIME INTERVALS.

A. Operator-Initiated Changes.

(1) The operator may request approval to amend inspection or overhaul intervals.

(a) The operator must justify the request using the following:

- Past operating experience
- Environmental conditions
- Inspection program provisions
- At least two overhaul tear-down reports
- Any other data necessary to substantiate changes

(b) Operator-initiated time changes require revisions to both the AAIP and operations specifications (see vol. 2, ch. 84, FAR Part 121/135 Operator's Specifications).

(2) Amendments or extensions are not allowed for life-limited items and/or those designated by AD's unless authorized in FAA-approved revisions.

B. Manufacturer Escalations.

(1) If a manufacturer extends the recommended inspection or overhaul interval, the operator may request approval to use the extension by submitting a revision to the AAIP. The request must be accompanied by the manufacturer's recommendation.

(2) Inspectors should not automatically approve a time escalation recommended by the manufacturer. The individual operator's aircraft use and experience must be considered. The inspectors should ensure that the escalation will not compromise safety.

9. POLICIES AND PROCEDURES MANUAL. The AAIP must be included in the operator's policies and procedures manual. The operator should request a manual revision (in accordance with manual revision procedures) at the same time the AAIP/revision is submitted for approval. This allows the FAA to approve the AAIP/revision and accept the manual concurrently, while advancing implementation of the program.

SECTION 2. PROCEDURES

1. PREREQUISITES AND COORDINATION REQUIREMENTS.

A. Prerequisites:

- Knowledge of the regulatory requirements of part 135
- Previous experience with complex maintenance/ inspection programs

B. Coordination. This task is performed by both principal maintenance inspectors (PMI) and principal avionics inspectors (PAI). It may require coordination with principal operations inspectors (POI) and/or regional specialists.

3. REFERENCES, FORMS, AND JOB AIDS.

A. References:

- 14 CFR parts 39, 43, 45, 47, 65, and 125
- Title 49 of the Code of Federal Regulations (49 CFR) Part 173
- AC 135-3, Air Taxi Operators and Commercial Operators, current edition
- AC 135-10, Approved Aircraft Inspection Program, current edition

B. Forms:

- FAA Form 8400-8, Operations Specifications

C. Job Aids:

- Automated operations specification checklists and worksheets

5. PROCEDURES.

A. Schedule and Conduct Preliminary Meeting, As Needed.

(1) Advise applicant of regulatory requirements and policies.

(2) Remind the operator that the AAIP/revision must be included in the policies and procedures manual.

B. Plan and Coordinate Task.

(1) Determine whether the aircraft meets eligibility requirements.

(2) Review operator file to identify any information concerning the AAIP/revision. Determine its effect on the operator's other programs or procedures.

(3) If this task is performed as part of an original certification, review the Schedule of Events to ensure that the evaluation can be accomplished according to the schedule.

C. Evaluate the Proposed Program/Revision.

(1) Evaluate instructions, procedures, and standards for conducting inspections.

(a) The program must include:

- Airframe
- Aircraft engines
- Propellers
- Appliances
- Survival and emergency equipment
- Component parts for the above items

(b) When establishing an inspection program for an aircraft, to comply with § 91.409(f)(5) or § 135.419, the program should include installed avionics and instrument systems (appliances). These systems are not always installed by the aircraft manufacturer and may not be included in their recommended inspection program to develop your inspections, instructions, and procedures for all installed systems incorporated into the program.

(c) Inspection standards, procedures, methods, instructions, or other technical data may be included in the program by reference, eliminating the expense and trouble of reprinting them. Such references may be either the airframe manufacturer's or the appliance manufacturer's service data. However, when both airframe manufacturer and the appliance manufacturer provide inspection data, that of the airframe manufacturer should be used.

(d) The avionics and instrument systems inspection should include a visual and functional check. Therefore, these definitions should be included in the program:

- *Visual Check.* Using acceptable methods, techniques, and practices to determine physical condition and safety item
- *Operational Check.* This is an operational test to determine whether a system or component is functioning properly in all aspects, conforming with minimum acceptable manufacture design specifications
- *Functional Check.* This test may require the use of appropriate test equipment

(e) The avionics and instrument systems inspections should be incorporated into the basic airframe program. The visual inspection of the avionics and

instrument systems should be accomplished at intervals corresponding to the airframe inspection interval, (i.e., inspect avionics and instrument equipment, wiring, connectors, bonding straps, circuit breakers, switches, etc.), forward of the instrument panel at the same interval with controls and structural inspections in that area.

(f) Functional checks of the avionics and instrument systems, using appropriate ramp test equipment, should be performed at intervals which should be a function of the aircraft operating environment, (i.e., one (1) year of manufacture design specification). The term "avionics" means aviation electronics and includes the following systems:

- Communications
- Navigation
- Electrical
- Instrument
- Lights
- Auto-Pilot/Flight Director System

(g) All required tests and checks recommended by the aircraft or equipment manufacturer must be addressed.

(h) Persons responsible for performing the work must be identified.

(i) The instructions, procedures, and standards must be clear and easily understood. They must identify the scope of each task and provide a detailed outline of each step that must be accomplished to perform the inspection and ensure that established standards are met.

(2) Evaluate the procedures for controlling life-limited parts. The program must contain provisions to ensure that records are current. Life limits must be expressed in one of the following measures:

- Length of time-in-service
- Number of cycles
- Number of landings
- Calendar time
- A combination of the above measures

(3) Evaluate procedures for scheduling inspections.

(a) The program must list inspection intervals and describe personnel responsibilities for scheduling and performing inspections.

(b) Procedures must ensure that inspections are performed by properly certificated, qualified, trained, current, and authorized personnel. The program must identify, by title, the person responsible for ensuring that inspection personnel meet FAA requirements.

(4) Ensure that engine overhaul periods correspond to the recommended overhaul intervals in the engine manufacturer's manuals and/or service bulletins.

(5) Evaluate procedures for reporting and correcting mechanical irregularities. The program must include detailed instructions, procedures, and the necessary forms and documents for the recording and repair of mechanical irregularities. These instructions, procedures, and forms may appear elsewhere in the company manual, but their location must be referenced in the AAIP.

(6) Ensure that the AAIP includes instructions on its use.

D. Analyze Findings. Determine if program changes are required. Before meeting with the operator/applicant, discuss initial findings with appropriate FAA personnel to determine the content of the briefing. Depending on the findings, it may be necessary to coordinate with the certification team, principal inspectors, regional specialists, or other FAA personnel.

E. Debrief Operator/Applicant. Discuss results of the evaluation, including any deficiencies noted during inspection.

7. TASK OUTCOMES.

A. File PTRS Data Sheet.

B. Completion of this task will result in one of the following:

(1) If the AAIP/revision is not acceptable, advise the operator/applicant by letter that the program/revision is rejected. Give the reasons for the rejection. Return the program proposal and documentation to the operator/applicant.

(a) If this review is performed as a part of a certification, inform the applicant in the letter that the certificate will not be issued until the deficiencies are corrected. If necessary, advise the applicant to revise the Schedule of Events.

(b) The letter must also accomplish the following:

- Confirm all agreements made during the debriefing
- Identify the date the AAIP/revision was submitted
- Show the revision number and date, as applicable
- Identify and describe all deficiencies by chapter, section, page, etc.
- Reference each deficiency to the appropriate regulation

- Request a revised Schedule of Events, if necessary
- If a revision, remind operator not to implement the revision

(2) If the program or revision meets all regulatory requirements, accomplish the following:

(a) Ensure that the AAIP or revision has been fully coordinated between maintenance and avionics.

(b) For a new or totally revised program, indicate, "Approved and authorized for use on operations specifications dated _____," on the first page identifying the program. The approving PMI and PAI shall sign and date the document. The date of the document approval must be the same as the date the AAIP's operations specifications are approved.

(c) Initial and date each page of the AAIP or revision, unless another control is used.

(d) In the case of a revision to an approved program, issue amended operations specifications (see vol. 2, ch. 84). The reverse side of the amendment must identify and justify the changes to the program.

(e) Send the operator a letter accepting the AAIP. The letter must accomplish the following:

- Request that the operator acknowledge receipt of the operations specifications by signing and dating the original and copy, and forward the copy to the district office
- Confirm all information given during the debriefing
- Indicate the date that the AAIP/revision was submitted
- Show the revision number and date, if applicable
- If a revision, indicate the number of approved pages
- Advise the operator that the revision may be implemented
- If a manual revision was submitted and is acceptable, advise the operator of acceptance
- If a manual revision was not submitted, remind the operator to revise the manual to incorporate the program/revision. Advise the operator to submit the manual change for acceptance.
- Enclose the stamped, dated, and initialed original AAIP
- Enclose the original and one copy of the approved operations specifications
- Enclose the accepted manual revision, if appropriate

(f) Send two copies of the new or amended operations specifications to the regional Airworthiness Branch.

9. FUTURE ACTIVITIES.

A. Schedule of Events. In the case of original certification, review the Schedule of Events to determine if a revised Schedule of Events is necessary.

B. Procedures and Policies Manual. Ensure that the Procedures and Policies Manual includes the AAIP/revision.